



PATENT
Attorney Docket No.: 016976-000810US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

CHANG et al.

Application No.: 10/766,993

Filed: January 28, 2004

For: SURFACE EXPRESSION OF
BIOLOGICALLY ACTIVE PROTEINS
IN BACTERIA

Examiner: Joseph Woitach

Art Unit: 1632

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references [in compliance with the requirements of 37 CFR §1.98(a)(2)] are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the

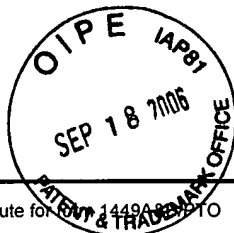
undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Matthew E. Hinsch', with a stylized, looping flourish.

Matthew E. Hinsch
Reg. No. 47,651

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/766,993
				Filing Date	January 28, 2004
				First Named Inventor	Chang, Chia-Hwa
				Art Unit	1632
				Examiner Name	Not yet assigned
Sheet	1	of	2	Attorney Docket Number	016976-000810US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	US-5,821,088	10-13-1998	Darzins et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	AB	WO	04/007695	A2	01-22-2004			

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
	AC	Avall-Jaaskelainen, Silja et al.; "Surface Display of the Receptor-Binding Region of the <i>Lactobacillus brevis</i> S-Layer Protein in <i>Lactococcus lactis</i> Provides Nonadhesive Lactococci with the Ability to Adhere to Intestinal Epithelial Cells"; 2003, <u>Applied and Environmental Microbiology</u> , Vol. 69, No. 4, pp. 2230-2236.	<input type="checkbox"/>	
	AD	GIOMARELLI, Barbara et al.; "The microbicide cyanovirin-N expressed on the surface of commensal bacterium <i>Streptococcus gordonii</i> captures HIV-1"; 2002, <u>AIDS Concise Communication</u> , Vol. 16, No. 10, pp. 1351-1356.	<input type="checkbox"/>	
	AE	LIU, Janice J. et al.; "Activity of HIV entry and fusion inhibitors expressed by the human vaginal colonizing probiotic <i>Lactobacillus reuteri</i> RC-14"; 2006, <u>Cellular Microbiology</u> , pp. 1-11.	<input type="checkbox"/>	
	AF	MAGGI, Tiziana et al.; "Genetic engineering of <i>Streptococcus gordonii</i> for the simultaneous display of two heterologous proteins at the bacterial surface"; 2002, <u>FEMS Microbiology Letters</u> , Vol. 210, pp. 135-141.	<input type="checkbox"/>	
	AG	NAVARRE, William Wley et al.; "Surface Proteins of Gram-Positive Bacteria and Mechanisms of Their Targeting to the Cell Wall Envelope"; 1999, <u>Microbiology and Molecular Biology Reviews</u> , Vol. 63, No. 1, pp. 174-229.	<input type="checkbox"/>	
	AH	PALLEN, Mark J. et al.; "An embarrassment of sortases - a richness of substrates?"; 2001, <u>Trends in Microbiology</u> , Vol. 9, No. 3, pp. 97-100.	<input type="checkbox"/>	
	AI	SAMUELSON, Patrik et al.; "Display of proteins on bacteria"; 2002, <u>Journal of Biotechnology</u> , Vol. 96, pp. 129-154.	<input type="checkbox"/>	

Examiner Signature		Date Considered	
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A&B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/766,993
				Filing Date	January 28, 2004
				First Named Inventor	Chang, Chia-Hwa
				Art Unit	1632
				Examiner Name	Not yet assigned
Sheet	2	of	2	Attorney Docket Number	016976-000810US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
	AJ	SCHNEEWIND, Olaf et al.; "Sorting of Protein A to the Staphylococcal Cell Wall"; 1992, <u>Cell</u> , Vol. 70, pp. 267-281.	<input type="checkbox"/>	
	AK	STRAUSS, Andreas et al.; " <i>In vivo</i> immobilization of enzymatically active polypeptides on the cell surface of <i>Staphylococcus carnosus</i> "; 1996, <u>Molecular Microbiology</u> , Vol. 21, No. 3, pp. 491-5000.	<input type="checkbox"/>	
	AL	THAT, Hung Ton et al.; "An embarrassment of sortases - a richness of substrates?"; 2001, <u>Trends in Microbiology</u> , Vol. 9, No. 3, pp. 101.	<input type="checkbox"/>	
	AM	TURNER, Mark S. et al.; "Peptide Surface Display and Secretion Using Two LPXTG-Containing Surface Proteins from <i>Lactobacillus fermentum</i> BR11"; 2003, <u>Applied and Environmental Microbiology</u> , Vol. 69, No. 10, pp. 5855-5863.	<input type="checkbox"/>	

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